Methodological notes

Data sources

Structure of earnings survey is carried out every four years, as a business statistical survey, having as reference periods the **month October** and the **calendar year**. The SES was implemented and carried out for the first time in 2002.

Survey objective

The main objective of the survey was to provide information on the number of employees, average hourly, monthly and annual earnings, working time. The indicators derived from the survey are available in different forms of aggregation, by demo-socio-economic characteristics: gender, age groups, economic activities, enterprises size classes, ownership, legal status, major groups of occupations, level of education, length in enterprise, duration and type of working program.

The survey design tools were done in accordance with the recommendations and standards of the European Union under the European Parliament and Council Regulation no 530/1999 concerning structural statistics on earnings and labour costs and Commission Regulation no 1738/2005 amending Commission Regulation no 1916/2000 as regards the definitions and transmission of information on the structure of earnings.

Sampling plan and weighting method

The survey was carried out in **enterprises with 10 or more employees**, those with 250 employees and over being exhaustively covered. "Budgetary units" (public administration, education, human health and social work activities) are exhaustively surveyed, except for the units of local public administration for which data at level of local communal councils were collected based on a sample representative at county level (about 820 units).

The selected sample provided data representativeness both on the national economy and in each economic activity at division level (2 digits), according to CANE Rev.2. Are not included the armed forces and similar staff (Ministry of National Defence, Ministry of Administration and Interior, Romanian Intelligence Service etc.).

The sample size selected according to the presented method was about 15050 enterprises. In order to reduce the response burden on enterprises, for the reference year 2022, the statistical survey was carried out through direct data collection (for about 9450 enterprises), combined with direct data extraction from administrative sources[1] (D112, REGES) and estimation of indicators (for about 5600 enterprises). Also, information from PHC[2] 2021 were used to estimate certain demo-socio-economic characteristics.

The **response rate**[3] related to the sample of enterprises in direct data collection was 88.49% and **refusal rate** 10.73%. In order to improve the quality estimates and to increase the overall response rate, estimation methods were applied, by imputing the missing data from the statistical survey with the data reported in administrative sources for the reference month October 2022 and the reference year 2022 and increasing in this way the overall response rate at 99.94%. The **imputation rate**[4] was 11.45%. About 1% of the enterprises in the sample extracted for the direct estimation of the indicators from the available administrative data sources were not identified.

The sampling plan was carried out in two stages:

I. In the first stage the enterprises were selected (Primary Selection Units) by applying the random stratified sampling scheme without replacement. Strata were defined by crossing the main activity of the enterprise, codified at division level of CANE Rev.2 with 5 size classes of

---

[1] the National Agency for Fiscal Administration - Declaration on payment obligations related to social contributions, the income tax and nominal records of insured persons (D112), respectively Labour Inspectorate - General Register of Employees (REGES)

[2] Population and Housing Census

[3] Are considered type of responses: responded units, answer provided by another unit

[4] Type of non-response considered: refusal, units not identified, units not contacted, dormant or insolvency units at the end of the reference year (that reported data in administrative sources).

the enterprises by number of employees: 10-49 employees, 50-249 employees, 250-499 employees, 500-999 employees, 1000 employees and over.

II. In the second stage, the employees were extracted (Secondary Units of Selection). For the employees' selection a random stratified sampling scheme was applied, the stratification variables were: gender (male, female) and occupation (major group level of the Romanian Classification of Occupations COR 2008[5]). The allocation of the sample of employees per enterprise was done using the proportional allocation by gender and major groups of occupation.

The final grossing-up factors were calculated in two steps: calculation of the grossing-up factors of the primary selection (at enterprise level) and calculating of the grossing-up factors of secondary selection (at employee level).

The determination of the grossing-up factors at enterprise level was done by weighting the non-responses and their calibration at division level of CANE Rev.2 with the information on enterprises active in Romania in 2022. The auxiliary variable was the number of employees (from Labour Cost Survey). The calibration was performed using specialised software.

Main concepts and definitions

- **The average number of employees** is the total number of employees working full-time or part-time, in enterprises with **10 employees and over** that worked and were paid for the entire reference month (October 2022). **Are not included** the employees whose working contract/agreement was suspended the entire reference month (October 2022).

- **The average gross hourly earnings** were calculated by dividing the gross amounts paid from the salary fund, from net profit and other funds for the month October, to the total number of paid hours in month October.

- **The average net hourly earnings** resulted by subtracting from the gross amounts related to the average gross earnings for month October, the social security contribution paid by the employees, the social health insurance paid by the employees and the corresponding tax, the result being divided by the total number of paid hours in month October.

- **The average gross monthly earnings** were calculated by reporting the gross amounts paid from the salary fund, from net profit and other funds for month of October, to the average number of employees in month October.

- **The average net monthly earnings** resulted by subtracting from the gross amounts related to the average gross earnings for month October, the social security contribution paid by the employees, the social health insurance paid by the employees and the corresponding tax, the result being divided to the average number of employees in month October.

At *the reference month* (October) level, from the gross amounts **are excluded**:
- severance payments or compensation amounts in case of lay-offs paid from the salary fund and/or other funds or based on normative acts in case of labour contract ceasing as consequence of the enterprise restructuring;
- backdated paid arrears related to previous years including wining the lawsuits involving the money rights;
- backdated paid arrears received by the employees for the previous years to the reference year (except for the annual bonuses, holiday bonuses for the current year);
- the amounts granted to cover the transport expenditure, accommodation, respectively the employees per diem for work related travels, inside the country or abroad (except the per diem amounts which oversees the not taxable threshold as stipulated in the legal provisions in force).

- **The average gross annual earnings** were calculated by reporting the gross amounts paid from the salary fund, from net profit and other funds for the reference year (2022), plus backdated paid arrears, to the average number employees in month October.

At *the reference year* level, in the gross amounts **are included** backdated paid arrears related to previous years including wining the lawsuits involving the money rights. **Are excluded** severance payments or compensation amounts in case of lay-offs paid from the salary fund

---

[5] COR 2008 - Classification of Occupations from Romania 2008, harmonized with the International Standard Classification of Occupations ISCO-08 (except for major group 0 Armed Forces)

and/or other funds or based on normative acts in case of labour contract ceasing as consequence of the enterprise restructuring.

*According to the national legislation provisions in force (GEO No. 79/2017, as subsequently amended and supplemented), the social security contribution and the social health insurance contribution paid by the employer were transferred to the employee; thus, **starting with the reference year 2018**, these contributions are **borne entirely by the employee** and reflected in the gross amount of the nominal earnings.*

*Consequently, the indicators „**the average gross hourly earnings**", „**the average gross monthly earnings**", respectively „**the average gross annual earnings**" produced and disseminated **starting with the reference year 2018** are no longer comparable to previous data series.*

*These legal provisions do not affect the data series comparability for „**the average net hourly earnings**", respectively „**the average net monthly earnings**".*

Starting from 2019, in accordance with the national legal provisions in force, certain categories of employees benefit from fiscal facilities in terms of tax and mandatory social contributions. Also, in some economic activities, a differentiated minimum gross basic salary is applied.

- Based on earnings variables were determined the intervals earnings sharing the employees' series ordered ascending, in 10 groups (deciles or deciles groups). For each decile was calculated the average (arithmetic mean) and median, the value which marks the dividing of the series into equal parts. Ascending series were ordered by three variables: gross and net earnings achieved in October 2022, the corresponding gross earnings of the year 2022 (annual earnings).

Classifications used

- **Classification of Activities in the National Economy (CANE Rev. 2)**, harmonized with the European classification in the field (NACE Rev. 2):

CANE Rev. 2 Code Section level	Name of activities
A	Agriculture, forestry and fishing
B	Mining and quarrying
C	Manufacturing
D	Electricity, gas, steam and air conditioning supply
E	Water supply; sewerage, waste management and remediation activities
F	Construction
G	Wholesale and retail trade; repair of motor vehicles and motorcycles
H	Transportation and storage
I	Accommodation and food service activities
J	Information and communication
K	Financial and insurance activities
L	Real estate activities
M	Professional, scientific and technical activities
N	Administrative and support service activities
O	Public administration (except armed forces and similar)
P	Education
Q	Human health and social work activities
R	Arts, entertainment and recreation
S	Other service activities

- **Classification of Occupations in Romania 2008** (COR 2008), harmonized with the international classification of occupations ISCO-08:

COR 2008 code - Major Group level (MG)	Name of major group of occupations
MG1	Managers
MG2	Professionals
MG3	Technicians and associate professionals
MG4	Clerical support workers
MG5	Service and sales workers
MG6	Skilled agricultural, forestry and fishery workers
MG7	Craft and related trades workers
MG8	Plant and machine operators and assemblers
MG9	Elementary occupations

- **Level of education**: described and codified referring to the highest level of education or training successfully completed grade completed, according to the national classification on education, harmonized with the International Classification of Education (ISCED 2011):

Level of education	Name of the level of education
basic	**Without any education,** including preschool - kindergarten
	Primary education (primary-school)
	Lower secondary education (gymnasium)
secondary	**Upper secondary education – high-school**
	Upper secondary education – vocational (vocational, complementary or apprentice education)
	Post-secondary education (post-high school, foremen)
tertiary	**Short-cycle tertiary education** (university college within a higher education institution)
	Tertiary education - bachelor or equivalent (university studies 4 years duration, Bologna degree 3-4 years duration)
	Tertiary education - master or equivalent (university studies 5-6 years duration, master, Bologna master)
	Tertiary education - doctoral or equivalent (post-university studies, doctorate degree and post-doctoral programmes)